

## REMARKS

### Interview

Applicants and the undersigned appreciate the Examiner's time and assistance during the recent telephone interview. Applicants are submitting this amendment in accordance with the interview with the Examiner.

### Claim Amendments

In order to advance the prosecution of this application, Applicants are amending independent Claim 1 (and similarly independent Claim 26) to recite the features of:

“etching the thin film by plasma etching using gas plasma irradiated by an array of nozzles over an area including the selected portion of the thin film and the pattern, and using the pattern as mask;  
wherein a larger quantity of gas plasma is irradiated over regions where the thin film is exposed than over the pattern.”

These features are supported by, for example, the plasma generating means of Figs. 4 and 5 and associated text, and in particular paragraph [0045], of the publication of the present application (US 2005/0043186). Thus, variations in quantity of gas directly translate into variations of quantity of gas plasma. In this context, Figs. 9 and 10 and paragraph [0082] of US 2005/0043186 support the features of this amendment. Accordingly, no new matter is being added, and it is respectfully requested that these amendments be entered and allowed.

Applicants are also amending independent Claims 1 and 23 to delete the feature relating to the integration of a first nozzle and a second nozzle and moving this feature into new dependent Claims 33 and 34, which depend on independent Claims 1 and 23, respectively.

### Claim Cancellation

In order to advance the prosecution of this application, Applicants are canceling independent Claims 2 and 26 and their dependent claims 5-6, 16-17, 27-28, 30 and 32, without prejudice or disclaimer, rendering the rejections of these claims moot.

Applicants will now address each of the rejections in the order in which they appear in the Office Action.

### Claim Rejections – 35 USC §112, Second Paragraph

In the Office Action, the Examiner now rejects Claims 1, 3-4, 6, 23-29 and 31-32 under 35 USC 112, second paragraph, as being indefinite. This rejection is respectfully traversed.

While Applicants traverse this rejection, in order to advance the prosecution of this application, Applicants are amending the claims as explained below.

With regard to the objections to Claim 1, Applicants are amending independent Claim 1 and dependent Claim 4 to delete the phrase “liquid-repellant” from the claims and providing an antecedent basis for “liquid composition.” These amendments should overcome the objections to Claims 1 and 4.

With regard to the objections to independent Claim 23, Applicants are amending Claim 23 to further specify that the mask pattern is formed over a part of the selected portion. This amendment should overcome the objections to Claim 23.

With regard to the objections to dependent Claim 31, Applicants are amending Claim 31 to replace “plasma discharge ports” with “nozzles” so as to be consistent with independent Claim 23.

This amendment should overcome the objections to Claim 31.

Accordingly, it is respectfully submitted that the objections under 35 USC §112, second paragraph, have been overcome, and it is respectfully requested that this rejection be withdrawn.

#### Claim Rejections – 35 USC §112, First Paragraph

The Examiner also rejects Claims 1-6, 16-17 and 23-32 under 35 USC §112, first paragraph, as failing to comply with the written description requirement. This rejection is also respectfully traversed.

While Applicants traverse this rejection, in order to advance the prosecution of this application, Applicants are amending the claims to recite “gas plasma,” as discussed above and in accordance with the Examiner’s suggestion in the interview. It is respectfully submitted that this amendment should overcome the objections under 35 USC §112, first paragraph, and it is respectfully requested that this rejection be withdrawn.

#### Claim Rejections – 35 USC §103

In the Office Action, the Examiner has the following rejections under 35 USC §103(a):

- A. Claims 2, 5, 16-17, and 30 are rejected as being unpatentable over Kiguchi et al. (U.S. 6,599,582) in view of Di Dio (U.S. 2004/0152329) or Okada et al. (US 2002/0014470), plus Speakman et al. (US 6,849,308), optionally further considering Lewis et al. (U.S. 5,272,979).
- B. Claims 1, 3-4, 6, 23-29 and 31-32 are rejected as being unpatentable over Kiguchi in view of Di Dio or Okada plus Speakman, optionally considering Lewis, and further in view of Yamazaki et al. (U.S. 7,189,654).

These rejections are also respectfully traversed.

With regard to Claims 2, 5, 6, 16-17, 30 and 32, in order to advance the prosecution of this application, Applicants are canceling these claims, without prejudice or disclaimer, rendering the rejection of these claims moot.

With regard to independent Claims 1 and 23, in order to advance the prosecution of this application, Applicants are amending the claims as discussed above and to recite “gas plasma,” in accordance with the Examiner’s suggestion in the interview. It is respectfully submitted that these features are not disclosed or suggested by the cited references.

Therefore, independent Claims 1 and 23 are not disclosed or suggested by the cited references, and Claims 1, 23 and those claims dependent thereon are patentable over the cited references. Accordingly, it is respectfully requested that the rejection of these claims be withdrawn.

#### Double Patenting

The Examiner rejects Claims 1-6, 16-17, 23-30 and 31-32 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-24 or Claims 1-16 of U.S. 7,189,654 or 7,625,493 in view of Kiguchi further in view of Di Dio or Okada, plus Speakman, optionally considering Lewis et al. This rejection is also respectfully traversed.

As explained above, in order to advance the prosecution of this application, Applicants are amending independent Claims 1 and 23. These features are not recited in the claims in U.S. 7,189,654 or 7,625,493.

Therefore, it is respectfully submitted that there is no double patenting, and it is respectfully requested that the double patenting rejection be withdrawn.

### New Claims

Applicants are adding new dependent Claims 33 and 34. As these are dependent claims, they are allowable for at least the reasons discussed above for the independent claims. Accordingly, it is respectfully requested that these new claims be entered and allowed.

If any fee should be due for these new claims, please charge our deposit account 23/0920.

### Information Disclosure Statement

Applicants filed an information disclosure statement (IDS) on April 25, 2011. It is respectfully requested that this IDS be entered and considered prior to the issuance of any further action on this application.

### Conclusion

It is respectfully submitted that the present application is in a condition for allowance and should be allowed.

If any further fee should be due for this amendment, the new claims, and/or the extension of time, please charge our deposit account 23-0920.

Favorable reconsideration is earnestly solicited.

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Respectfully submitted,

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